Subject: Re: Horn Mouth Diffraction
Posted by Martin on Thu, 06 Oct 2005 23:31:11 GMT
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M,Looking at the EDGE again I think I was in error. My MathCad worksheets use the same basic math as the EDGE but can handle both rectangular and circular sources and baffles. So modelling a round or rectanguler horn mouth and baffle is easily done. I don't think the EDGE will do those combinations. I used the EDGE as a double check of my algorithm using sample problems.As far as rounded edges on baffles, I do not believe that exact modelling of this is needed. There are two effects from the baffle, the baffle step as the sound radiated transitions from 4 pi to 2 pi and the sound "scattering" at the edge itself. The second effect produces small wiggles in the SPL plot. I do not believe that these small wiggles are as significant as room effects or the baffle step response. Maybe this is because I use full range drivers that are starting to beam at these same frequencies so the impact of the edge sharpness/radius is minimal.Thanks for the offer of help with the horn worksheets. At this time I am pursuing a design and test of my own and have decided to hold onto the worksheets and the test results until I decide what I want to make available.Martin